

CLIMATOLOGICAL DATA FOR DECEMBER, 1913.

DISTRICT NO. 8, TEXAS AND RIO GRANDE VALLEY.

M. SPRAGUE, Acting District Editor.

GENERAL SUMMARY.

The marked features of the month were the persistently cold weather in the western portion of the district and the abnormally heavy precipitation in New Mexico and in the interior of Texas. In Texas the current month was the wettest December of record, and in New Mexico the wettest with the exception of that of 1906. The excess in precipitation was general in Colorado and New Mexico, but in Texas there was a slight deficiency on the immediate coast and in a few extreme western counties, while the excess over a broad belt extending from the upper Guadalupe watershed to the middle Trinity ranged from 8 to 13 inches. In the last-named area there were 25 stations with monthly amounts of over 10 inches and 2 with more than 15 inches. Over 75 per cent of the precipitation in Texas fell during the first five days, although the skies were more or less overcast during the last two decades and light rains occurred at frequent intervals. There were two general precipitation periods in the western portion of the district, namely, between the 1st and 5th and between the 15th and 21st. The sunshine was decidedly deficient and the number of rainy days above the normal. The number of days with 0.01 inch or more of precipitation averaged 6 in Colorado, 5 in New Mexico, and 8 in Texas.

The greatest and least monthly amounts of precipitation were, respectively, in Colorado 3.02 inches at Cumbres and 0.52 inch at Manassa; in New Mexico, 4.40 inches at Tajiique and 0.15 inch at Lakewood; and in Texas, 17.10 inches at San Marcos and a trace at Grand Falls. Excessive precipitation of 2.50 inches or more in 24 consecutive hours occurred at 52 stations in Texas, the greatest being 10 inches at San Marcos on the 3d-4th.

The snowfall over the upper reaches of the Rio Grande and Rio Pecos watersheds was unusually heavy. The greatest monthly fall in Colorado was 39.5 inches at Cumbres; and in New Mexico, 93.0 inches at Anchor Mine. The persistently cold weather prevented melting and the stored depth at the close of December was well above normal, averaging about 24 inches at the snowfall stations in the Rio Grande watershed and about 14 inches over the upper and middle Pecos watersheds.

The prevailing winds were westerly in Colorado and New Mexico and northerly in Texas.

TEMPERATURE.

The average daily temperature deficiency was 5.0° in Colorado, 3.6° in New Mexico, and 2.5° in Texas. Over limited areas in south Texas the monthly mean temperatures were above the normal. The extremes of tempera-

ture were well marked in the western half of the district, but in the eastern half of Texas there was little freezing weather and no sharp changes in temperature. The first six days were abnormally warm and the highest temperatures of the month generally occurred during this period. The last decade was persistently cool, with lowest temperatures between the 20th and 26th. The average diurnal range of temperature varied from 9° on the Texas coast to 36° at some of the mountain stations in New Mexico.

The highest and lowest temperatures reported were, respectively, in Colorado 45° at Saguache on the 6th, and -30° at Hermit on the 22d; in New Mexico, 68° at Boaz on the 14th, and at Fort Stanton on the 15th, and -22° at Tres Piedras on the 22d; and in Texas, 91° at Brighton on the 2d, and 3° at Plainview on the 23d. The local monthly means ranged from 6.4° to 15.4° in Colorado, from 10.3° to 40.5° in New Mexico, and from 35.4° to 61.4° in Texas.

PRECIPITATION.

The precipitation over the Rio Grande watershed averaged 1.51 inches, which is nearly double the normal amount. The excess was greatest over the upper watershed, while a slight deficiency occurred in Texas between Eagle Pass and Fort McIntosh.

The Rio Pecos watershed also received double the normal amount of moisture over the New Mexico portion, but there was a small deficiency in the Texas portion. The average for this drainage area was 1.15 inches.

All the Texas watersheds received more than the normal rainfall, with excesses ranging from 0.17 inch for the coastal plains to 5.22 inches for the Trinity watershed. The excess was general, except in their extreme lower portions, where there was a slight deficiency. The following are the monthly amounts in inches and hundredths for the various watersheds: Nueces, 4.06; San Antonio, 4.46; Guadalupe, 6.38; Lavaca, 3.44; Colorado, 5.08; Brazos, 6.51; Trinity, 7.66; Neches, 6.61; Sabine, 6.18; and coastal plains, 2.60.

RIVER CONDITIONS.

Following persistent local rains during the last decade in November, which thoroughly soaked the ground, excessive precipitation over the interior and northeastern portions of Texas during the first five days in December caused unprecedented floods in the Guadalupe River, in the Colorado below Austin, and in the Brazos from Waco to the Gulf. The Trinity also was well out of its banks throughout its course, but did not reach so high a stage as

in 1908. The Sabine was out of its banks in low places, but did no material damage.

The floods crested almost simultaneously in practically all the rivers, and in many cases the water overflowed the lowlands adjacent to streams, the overflowed area being estimated as embracing about 3,000 square miles. Levees were broken, a number of towns were flooded, and about 180 persons lost their lives; while the property loss or damage amounted to over \$8,000,000.

The following table shows flood crests in the different rivers with dates of occurrence:

River.	City.	Crest.	Date.	Flood stage.
Trinity.....	Dallas.....	38.4	Dec. 6	25
Brazos.....	Waco.....	39.7	Dec. 3	22
Guadalupe.....	Victoria.....	24.8	Dec. 7	16
Colorado.....	Austin.....	27.0	Dec. 5	18

A full account of these floods has been prepared and will probably be published in an early issue of some of the more important technical journals.

TABLE 1.—Climatological data for December, 1913. District No. 8, Texas and Rio Grande Valley.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Prevailing wind direction.	Observers.			
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmeasured.								
<i>Colorado.</i>																						
Blanca.	Costilla.	7,866	4	12.4	.....	42	37	— 23	22	51	3.02	.....	1.28	39.5	7	16	7	8	w.	V. R. Liggett.
Cumbres.	Conejos.	10,015	6	10.9	— 5.0	42	6	— 25	23	44	0.71	+ 0.48	0.47	8.0	5	17	4	10	nw.	Mrs. Ida M. Lively.		
Garnett.	Costilla.	7,576	20	10.9	6.4	43	31	— 30	23	57	2.16	.....	0.82	28.2	5	14	7	10	.....	Charles Speiser.
Hermit.	Hinsdale.	9,843	6	11.4	.....	42	37	— 25	22	46	2.91	.....	1.50	30.0	5	3	17	11	w.	Miss Marion Mason.
La Veta Pass.	Costilla.	9,000	3	11.4	.....	42	37	— 25	22	46	0.52	.....	0.36	8.0	3	14	8	9	sw.	Clara M. Wright.
Manassa.	Conejos.	7,700	7	11.4	.....	42	37	— 25	22	46	2.83	.....	1.28	38.3	7	18	4	9	sw.	J. B. Chapman.
Platoro.	do.	9,675	6	11.4	.....	42	37	— 25	22	46	0.65	+ 0.39	0.33	10.1	9	15	1	15	w.	Samuel P. Mix.	
Saguache.	Saguache.	7,740	21	15.4	— 5.2	45	6	— 15	22	44	0.86	+ 0.20	0.35	7.6	9	16	2	2	sw.	Eugene Williams.		
San Luis.	Costilla.	7,794	22	12.7	— 9.5	41	1	— 21	20	48	2.65	+ 1.82	1.09	30.4	11	18	9	4	.....	P. B. Albright.	
Wagon Wheel Gap Experiment Station.	Mineral.	9,610	14	11.2	— 0.5	33	31	— 15	20	34	.....	.....	.....	.....	.....	.....	.....	.....	.....	U. S. Weather Bureau.
<i>New Mexico.</i>																				.....	
Agricultural College.	Dona Ana.	3,863	52	39.4	— 3.1	62	3	20	30	35	1.10	+ 0.65	0.90	0	2	18	4	9	s.	New Mexico Agric. College.		
Alamogordo (near).	Otero.	4,338	16	39.8 ^d	— 1.0	61	5	19	25	28	1.56	+ 0.90	1.03	T.	4	16	3	12	sw.	Edward Le Breton.		
Alamogordo.	do.	4,320	4	38.4	.....	57	3	22	26	31	1.34	.....	1.24	0	3	25	6	5	n.	Agent E. P. & S. W. R. R.
Alamos Ranch.	Sandoval.	7,800	3	.....	.....	.....	.....	0	22	.....	2.27	.....	1.11	24.5	8	16	6	9	sw.	H. H. Brook.
Albuquerque.	Bernalillo.	4,960	37	.....	.....	.....	.....	0.80	.....	.....	1.06	+ 0.66	0.34	7.8	7	19	8	4	w.	Pitt Ross.
Ancho.	Lincoln.	6,112	4	.....	.....	.....	.....	0.80	.....	.....	4.33	.....	0.40	10.5	4	13	6	12	s.	Agent E. P. & S. W. R. R.
Anchor Mine.	Taos.	10,600	2	.....	.....	.....	.....	0.79	.....	.....	2.16	.....	0.60	9.0	10	13	6	12	w.	C. H. Brigham.
Artesia.	Eddy.	3,350	5	38.4	.....	66	31	11	28	43	0.79	.....	0.83	30.0	6	13	4	13	sw.	Will Benson.
Aspen Grove Ranch.	Rio Arriba.	9,000	4	.....	.....	.....	.....	0.79	.....	.....	2.72	.....	2.00	31.9	7	12	18	1	.....	Junius D. Maupin.
Batemans Ranch.	do.	8,900	4	.....	.....	.....	.....	0.79	.....	.....	2.72	.....	2.00	31.9	5	14	10	8	w.	John W. Bateman.
Berino.	Dona Ana.	3,788	2	.....	.....	.....	.....	0.79	.....	.....	2.72	.....	2.00	31.9	4	16	12	3	w.	J. C. McNary.
Bluewater.	Valencia.	6,732	11	25.0	— 2.0	50	11	— 20	22	45	0.47	+ 0.12	0.47	3.0	1	13	10	8	sw.	Bluewater Development Co.		
Boaz.	Chaves.	4,154	4	37.3	.....	63	14	5	22	50	0.97	.....	0.68	6.0	7	21	4	6	sw.	William Horner.
Capitan.	Lincoln.	6,348	4	.....	.....	.....	.....	0.97	.....	.....	1.28	.....	0.72	19.0	4	16	11	4	w.	Agent E. P. & S. W. R. R.
Carlsbad.	Eddy.	3,120	18	.....	.....	.....	.....	0.97	.....	.....	2.43	.....	0.40	5.0	1	24	7	0	e.	U. S. Reclamation Service.
Carrizozo.	Lincoln.	5,438	5	32.5	.....	56	15	6	26	38	0.40	.....	0.34	10.9	7	14	6	5	w.	Agent E. P. & S. W. R. R.
Cerrillos (near).	Santa Fe.	5,700	1	27.1	.....	54	1	5	25	43	0.96	.....	1.26	57.5	9	18	9	4	sw.	Irving C. Sweet.
Chama.	Rio Arriba.	7,851	15	18.6	— 7.0	44	10	— 11	24	40	3.73	+ 1.58	1.05	48.0	7	12	14	5	sw.	Frank C. Johnson.		
Cloudcroft.	Otero.	8,650	11	21.8	— 5.8	46	14	— 3	22	32	3.23	+ 1.64	0.67	13.0	6	5	23	3	nw.	Agent E. P. & S. W. R. R.		
Corona.	Lincoln.	6,666	4	29.0	.....	52	1	6	29	36	1.30	.....	0.97	7.0	21	7	3	sw.	Do.	
Coyote.	do.	5,800	4	.....	.....	.....	.....	0.97	.....	.....	1.51	.....	0.30	9.0	4	16	12	3	w.	Do.
Cundiyo.	Santa Fe.	6,839	4	.....	.....	.....	.....	0.97	.....	.....	2.72	.....	2.00	31.9	4	16	12	3	w.	Juan Villal.
Demonstration Farm.	San Miguel.	6,800	4	.....	.....	.....	.....	0.97	.....	.....	2.72	.....	2.00	31.9	5	14	10	8	sw.	W. F. Calhoun.
Duran.	Torrence.	6,272	4	30.0	.....	54	14	12	22	36	1.41	.....	0.72	14.0	4	20	5	6	sw.	Agent E. P. & S. W. R. R.
Eilda.	Roosevelt.	4,345	1	.....	.....	.....	.....	0.97	.....	.....	2.29	.....	0.15	0	2	17	2	17	.....	A. J. Evans.
Escondido.	Otero.	4,014	4	.....	.....	.....	.....	0.97	.....	.....	2.29	.....	0.27	8.0	6	18	4	9	n.	Agent E. P. & S. W. R. R.
Espanola.	Rio Arriba.	5,590	15	26.6	— 1.7	49	4	8	22	32	0.54	+ 0.23	0.27	11.4	5	17	9	5	nw.	Mrs. E. F. McBride.		
Estancia.	Torrence.	6,140	8	25.6	.....	55	14	6	21	45	1.01	+ 0.32	0.28	14.0	7	21	9	1	w.	Estancia Drug Co.	
Fluorine.	Socorro.	7,000	4	.....	.....	.....	.....	0.97	.....	.....	2.29	.....	0.36	14.0	7	21	9	1	w.	Frank P. Davis.
Fort Stanton.	Lincoln.	6,231	36	30.9	— 4.9	68	15	— 2	28	52	1.50	+ 0.64	0.73	14.5	4	3	10	18	w.	U. S. Sanitarium.		
Fort Sumner.	Guadalupe.	3,960	5	33.8	.....	57	17	— 8	22	41	1.34	+ 0.81	0.65	5.0	6	17	7	5	nw.	Peter Yockey.	
Gallinas.	Lincoln.	6,635	4	.....	.....	60	14	1	25	43	1.96	.....	1.00	15.0	6	20	6	4	nw.	Agent E. P. & S. W. R. R.
Gallinas Planting Sta.	San Miguel.	7,500	6	28.0	.....	57	31	— 5	21	50	1.13	.....	0.56	14.6	6	21	4	6	e.	U. S. Forest Service.
Glorietta Ranch.	Socorro.	6,300	3	35.8	.....	49	37	14	23	22	1.10	.....	0.46	16.0	5	21	3	7	w.	Chas. M. Crossman.
Harveys Upper Ranch.	San Miguel.	9,400	4	22.6	.....	43	31	— 2	20	38	1.92	.....	0.67	21.8	10	16	9	6	w.	R. B. Schoonmaker.
Hermosa.	Sierra.	4,500	8	.....	.....	48	23	— 2	22	38	1.73	.....	1.01	25.4	4	19	8	4	ne.	W. H. MacDonald.
Hobbs.	Eddy.	3,900	4	38.8	.....	59	17	17	22	36	1.06	.....	0.35	0.2	5	21	5	5	w.	E. H. Byers.
Hondo Reservoir.	Chaves.	3,904	4	36.6	.....	60	1	12	17	39	1.28	.....	0.96	3.0	6	22	1	8	s.	U. S. Reclamation Service.
Jemez Springs.	Sandoval.	6,100	3	26.7	.....	45	15	2	22	28	1.98	.....	0.55	19.0	8	8	12	11	sw.	Mrs. L. L. Shields.
Knowles (near).	Eddy.	4,300	3	38.6	.....	62	1	14	22	38	1.22	.....	0.48	T.	3	22	4	5	nw.	J. W. Mosley.
Laguna.	Valencia.	5,840	8	.....	.....	.....	.....	0.97	.....	.....	2.17	.....	0.50	2.5	6	21	3	7	sw.	Gus Weiss.
Lagunita.	Guadalupe.	5,000	5	.....	.....	.....	.....	0.97	.....	.....	2.17	.....	0.50	2.5	6	21	3	7	sw.	P. A. Turnbull.
Lake Valley.	Sierra.	5,412	5	.....	.....	.....	.....	0.97	.....	.....	2.17	.....	0.50	2.5	6	18	11	2	sw.	William P. Keil.
Lakewood (near).	Eddy.	3,170	1	39.8	.....	64	3	18	8	42	0.18	.....	0.10	0	2	26	2	3	se.	Mrs. J. K. Boyd.
Lanark.	Dona Ana.	4,156	14	0.97	2.29	1.00	0.49	1.00	0	1	13	5	3	sw.	Agent So. Pac. R. R.
Las Vegas.	San Miguel.	6,385	26	23.0	— 9.4	47	31	— 12	17	48	0.98	+ 0.35	0.46	9.1	3	16	10	5	n.	New Mexico Normal Univ.		
Los Lunas (near).	Valencia.	4,900	24	30.0	— 3.3	50	5	9	22	35	0.81	+ 0.35	0.30	5.5	3	12	16	5	n.	Richard Pohl.		
Magdalena.	Socorro.	6,556	8	29.6	.....	51	13	6	22	30	1.12	+ 0.37	0.50	11.5	4	17	9	5	w.	William Pender.	
Mescalero.	Otero.	6,627	2	28.8	.....	53	14	— 1	22	38	2.27	.....	0.92	25.2	6	18	5	3	sw.	Rev. R. H. Harper.
Mineral Hill.	San Miguel.	7,050	8	.....	.....	.....	.....	0.97	.....	.....	2.29	.....	0.80	2.5	6	21	3	7	sw.	W. M. Nelson.
Monterey.	Otero.	4,436	4	.....	.....	.....	.....	0.97	.....	.....	2.29	.....	0.80	2.5	6	21	3	7	sw.	Agent E. P. & S. W. R. R.
Mordart.	Torrence.	6,204	11	.....	.....															

TABLE 1.—*Climatological data for December, 1913. District No. 8—Continued.*

TABLE 1.—Climatological data for December, 1913. District No. 8—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches				Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Sky.	Prevailing wind direction.	Observers.						
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmeasured.												
Texas—Continued.																										
Hebronville.	Duval.	6																								
Hempstead.	Waller.	254	9																							
Henderson.	Rusk.	500	4																							
Hewitt.	McLennan.	664	18																							
Hico.	Hamilton.	2																								
Hillsboro.	Hill.	628	10	44.8	— 0.8	71	2	24	25	32	11.89	+ 11.07	7.81	2.15	0.50	0	8	12	0	19	n.					
Hondo.	Medina.	901	14	51.6	— 0.8	78	2	30	28	30	5.54	+ 4.22	4.52	2.95	0	7	14	0	17	s.						
Houston.	Harris.	128	23	53.4	— 0.7	76	2	23	26	29	6.23	+ 2.45	1.52	0	0	14	7	10	6	15	n.					
Huntsville.	Walker.	400	29	48.2	— 3.6	77	2	26	26	28	9.88	+ 6.35	4.40	0	0	5	5	8	0	17	w.					
Jayton.	Kent.	3																								
Jewett.	Leon.	498	9	46.5		74	2	23	23	33	11.10		4.50	T.	0	0	3	19	2	10	n.					
Junction.	Kimble.	1,645	12	50.1		80	3†	22	28†	42	4.08	+ 3.05	3.00	0	0	3	13	10	11	14	n.					
Kaufman.	Kaufman.	448	14	46.8	— 0.4	68	1	27	26	23	13.25	+ 9.72	7.53	0	0	10	6	11	11	14	n.					
Kerrville.	Kerr.	1,650	17	48.6	+ 0.5	76	2	23	29	32	5.40	+ 3.76	2.67	0	0	6	10	11	11	14	n.					
Knickerbocker.	Tom Green.	2,050	9	47.0		76	2	20	29	37†	2.62		0.87	T.	0	0	5	14	3	7	n.					
Kopperl.	Bosque.	576	18																							
Lagrange.	Fayette.	276	3																							
La Marca.	Dawson.	2,500	3																							
Lampasas.	Lampasas.	1,026	21	46.8	— 2.4	76	2	23	30	35	11.30	+ 9.47	6.05	0	0	10	16	0	15	n.						
La Parra.	Willacy.	38	11																							
Laredo.	Webb.	421																								
Laureles Ranch.	Nueces.	20	13																							
Liberty.	Liberty.	38	9	53.4		78	2	25	26	32	5.13	+ 0.86	0.51	0	0	1	8	10	6	15	n.					
Llano.	Llano.	1,040	22	47.5	— 3.1	77	2	25	29	39	5.41	+ 4.17	1.93	0	0	10	5	20	6	6	ne.					
Llano Grande.	Hidalgo.	86	5	57.2		85	1†	30	25	42	1.79		1.20	0	0	9	19	3	13	n.						
Long Lake.	Anderson.	229	8																							
Longview.	Gregg.	336	27	48.4	— 2.2	72	2	28	26	26	7.53	+ 3.37	2.05	0	0	8	11	2	13	n.						
Lubbock.	Lubbock.	2	37.2	50.4		59	11	4	22	39	2.12		1.11	6.00	0	0	12	17	5	9	nw.					
Lufkin.	Angelina.	325	6	50.4		77	2	24	26	32	6.70		1.75	0	0	8	12	1	18	n.						
Luling.	Caldwell.	418	24	51.8	— 0.1	75	1†	31	26†	24	7.10	+ 5.01	2.05	0	0	18	10	6	15	n.						
McGregor.	McLennan.	713	3																							
McKinney.	Collin.	612	11	44.8		65	1	21	26	34	6.09	+ 2.28	2.60	T.	0	0	8	6	17	nw.						
Marathon.	Brewster.	4,043	3	42.2		66	2	19	8	38	0.25		0.24	0	0	2	17	10	4	s.						
Marble Falls.	Burnett.	771	5																							
Marfa.	Presidio.	5																								
Marshall.	Harrison.	375	12	47.2		71	2	25	26	31	6.23	+ 1.37	1.08	0	0	11	3	11	17	n.						
Matacgora.	Matacgora.	12	3																							
Mexia.	Limestone.	537	9	45.7		70	2	25	26	26	11.08		3.55	0	0	12	5	11	15	e.						
Mont Belvieu.	Chambers.	65	3																							
Montell.	Uvalde.	1																								
Mount Blanco.	Crosby.	2,750	24	36.6	— 4.7	57	4	8	22	33	1.35	+ 0.74	0.50	0	0	8	16	7	8	nw.						
Nacogdoches.	Nacogdoches.	271	14	48.4	— 1.9	72	1†	25	26	29	6.44	+ 2.13	1.52	0	0	8	10	5	16	n.						
New Braunfels.	Comal.	720	24	51.0	— 1.9	78	2	31	26†	24	8.12	+ 5.86	4.20	0	0	11	10	9	12	n.						
Palestine.	Anderson.	510	31	47.8	— 1.6	71	1	28	26	25	10.88	+ 7.21	5.37	0	0	10	6	10	15	nw.						
Panter.	Hood.	1,000	24																							
Pearl.	Frio.	629	3																							
Pearall.	Reeves.	41.5																								
Pecos.	Wharton.	102	7	57.6		80	3	39	26	24	4.06		0.43	0	0	11	10	0	21	n.						
Plainview.	Hale.	3,370	17	35.4	— 0.5	62	10	3	23	36	1.70	+ 1.23	0.94	0	0	7	13	10	8	n.						
Port Lavaca.	Calhoun.	20	12																							
Pot.	Garza.	2,700	3																							
Putnam.	Callahan.	1,591	2																							
Raymondville.	Cameron.	57	4	59.8		87	3	30	26	43	2.52		1.73	0	0	8	5	13	13	nw.						
Ricardo.	Nueces.			58.4		84	3	29	26	45	0.90		0.50	0	0	3	11	4	16	n.						
Rio Grande.	Star.	86															5	5	11	n.						
Riverview.	Walker.	169	9														7	15	1	15	n.					
Rockport ^{**} .	Tyler.	136															1.10	0	7	6	n.					
Roseville.	Aansas.	12	12	57.8	+ 0.4	77	2†	40	25	22	1.49	+ 1.64	0.30	0	0	8	11	5	15	n.						
Rutledge.	Atascosa.	558	6	52.8		79	1	30	23	32	4.89		1.60	0	0	12	18	6	7	ne.						
Runge.	Karnes.	308	18																							
Sabinal.	Uvalde.	964	9	52.8		80	2	30	26†	29	4.31		2.85	0	0	10	12	7	12	se.						
Salado.	Bell.	3															5.90	7	12	1	n.					
San Angelo.	Tom Green.	1,847	22	48.7	+ 2.6	72	2	25	27	38	1.98	+ 0.82	0.68	0	0	4	5	9	1	s.						
San Antonio.	Bexar.	701	23	52.4	— 0.7	78	2	32	26	24	4.47	+ 2.01	2.19	0	0	10	12	4	15	ne.						
San Augustine.	San Augustine.	360	4	49.4		75	2	23	26	32	4.61		1.20	0	0	8	6	6	17	n.						
San Juanito.	Hidalgo.	4		58.8		87	4	31	25	38	2.38		1.32	0	0	9	7	0	24	n.						
San Marcos.	Hays.	558	20	49.6	— 0.9	76	2†	28	30	31	17.10	+ 1.31	10.00	0	0	9	14	0	17	n.						
San Saba.	San Saba.	1,712	12	47.0	— 1.4	76	2	22	29	32	3.68	+ 2.73	0.97	0	0	10	13	5	13	n.						
Santa Gertrudes.	Nueces.	13															1.10	0	1							
Sealy.	Austin.	201	2														1.05	0	14	6	17					
Seymour.	Baylor.	1,320	1	43.0		69	31	22	29	36	2.91		0.70	0.1	7	20	2	9	n.							
Smyder.	Scurry.	1,200	4	41.2		68	30†	19	23	45	3.05		1.06	1.2	0	8	21	7	3	n.						
Somerville.	Burleson.	251	4																							
Sonora.	Sutton.	2,300	3																							

TABLE 2.—*Daily precipitation for December, 1913. District No. 8, Texas and Rio Grande Valley.*

TABLE 2.—*Daily precipitation for December, 1913. District No. 8—Continued.*

Stations.	Watershed.	Day of month.																														Total			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
New Mexico—Con.																																			
Tres Piedras.	Rio Grande.	.25																																	1.27
Truchas.	do.																																	1.30	
Tularosa.	do.																																	1.37	
Vaughn.	Pecos																																	2.08	
Virsylvia.	Rio Grande.	.16	.07	.08	*	1.54																											0.74		
Willard.	Pecos do.																																	1.56	
Winsors.	Pecos	.16	T.	T.	.63	.21																													
Texas.																																			
Abilene.	Brazos.	.01	.05	.49	.83																													2.07	
A:ban'y.	do.	.26	.25	.30	.85	.13																												2.64	
Alpine []	Coast.	.15																																1.15	
Anahuso.	Pecos																																	0.30	
Angleton.	do.																																	3.01	
Antelope.	Trinity.	.78	.27	T.	1.16																													5.17	
Aspermont.	Brazos.	.88	.81	.50																														3.03	
Austin.	Colorado.	.06	1.85	6.34	4.32	1.50																												2.82	
Ballinger []	do.	.25	10.	1.55	.60																													2.90	
Barstow.	Pecos																																	6.55	
Bay City []	Colorado.																																	3.55	
Beaumont []	Neches																																	2.06	
Beeville []	Coast.	.20																																2.62	
Big Spring.	Colorado.	1.08	.97	.11																														7.76	
Blanco []	Guadalupe.	.04	1.26	6.65	4.12	.65																												5.82	
Boerne []	San Antonio.	1.10	.63	2.20	.78																													8.08	
Booth []	Brazos.	.10	.15	1.20	.05																													3.55	
Bowie.	Trinity.	.51	1.02	.65	.76																													4.30	
Brazoria.	Brazos.																																	4.53	
Brazos []	do.																																	3.95	
Brenham []	T.	.10	.42	3.73	.60	.05																											8.08		
Bridgeport []	Trinity.																																	3.55	
Brighton.	Coast.	1.20	.86	.56																														2.01	
Brownsville.	Rio Grande.																																	1.17	
Brownwood []	Colorado.																																		
Bryan.	Brazos.																																		
Buena Vista.	Pecos		T.																															0.43	
Cameron []	Brazos.	.62	4.08	4.29	.97																													12.05	
Carmona.	Neches																																	6.34	
Carrizo Springs.	Nueces																																	2.00	
Claytonville.	Brazos.	T.	1.20	.62	.73	T.																												3.35	
Cleburne.	do.	4.02	7.11	0.71																														7.13	
Clifton.	do.	.04	4.51	3.38	.82	.70																											11.26		
Coleman.	Colorado.	.25	1.21	1.29	.57																													2.80	
Collegeport.	Coast.																																		
College Station.	Brazos.	T.	2.35	1.59	7.64	.76	T.																											12.65	
Colorado.																																		4.57	
Columbus []	do.																																	6.05	
Comanche.	Brazos.	10.10																																3.46	
Corpus Christi.	Coast.	T.	T.	T.	T.	.07																											1.34		
Corsicana []	Trinity.	.93	8.77	3.25	1.05	.17																											11.15		
Cotulla.	Nueces																																	2.80	
Crockett.	Trinity.	.02	1.88	2.62	.97																													3.85	
Cuero []	Guadalupe.	T.	74.00	1.11	.25																												3.90		
Dallas []	Trinity.	T.	3.83	.54	1.05	.11																											6.63		
Danevang.	Coast.																																	7.75	
Del Rio.	Rio Grande.	.03	.93	.22	.24																												1.72		
Denton.	Trinity.	.16	1.69	.10	.47	.63																										4.23			
Devine.	Nueces	.12	1.10	.15	.70	.90																										4.12			
Dilley.	Neches																																10.51		
Dublin []	Brazos.																																3.65		
Duval.	Colorado.	.08	2.21	4.50	2.78	2.07																										13.09			
Eagle Pass.	Rio Grande.																																0.68		
Eastland []	Brazos.	.30	.55	.65	.30																											2.40			
Edna.	Lavaca.	</td																																	

TABLE 2.—*Daily precipitation for December, 1918. District No. 8—Continued.*

* Precipitation included in that of the next measurement.

Separate dates of falls not recorded.

Precipitation for the 24 hours ending on the morning when it is measured.

T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 3.—*Maximum and minimum temperatures at selected stations for December, 1915. District No. 8, Texas and Rio Grande Valley.*

Date.	Colorado.				New Mexico.												Texas.											
	Garnett.	San Louis.			Agricul-tur-al College.		Carlsbad.		Fort Stanton.		Mountain-air.		Rosedale.		Roswell.		Santa Fe.		Santa Rosa.		Abilene.		Big Spring.		Brownsville.		Corpus Christi.	
		Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	
1	40	21	41	23	53	34	—	—	64	24	42	26	—	—	60	36	41	27	55	29	60	46	66	51	82	71	76	71
2	39	6	32	5	58	24	—	—	58	21	38	19	—	—	53	34	37	22	44	21	70	58	64	53	84	73	77	74
3	39	15	40	14	62	31	—	—	60	28	42	22	—	—	44	39	42	27	39	35	61	54	56	51	84	72	75	73
4	23	19	35	24	46	33	—	—	48	25	38	20	—	—	52	34	41	23	44	34	67	52	63	50	80	71	76	71
5	36	7	29	18	51	32	—	—	52	18	35	20	—	—	50	32	30	21	45	2	54	42	58	79	59	69	74	54
6	42	18	39	22	57	21	—	—	48	16	46	19	—	—	56	32	41	22	52	30	52	42	54	38	75	53	72	52
7	29	—5	35	—4	55	24	—	—	50	15	43	22	—	—	48	10	40	18	42	22	45	30	44	32	65	48	58	50
8	30	—9	29	—12	52	23	—	—	45	12	43	20	—	—	47	21	42	18	45	20	45	25	44	23	68	42	53	46
9	27	—11	28	—7	49	22	—	—	54	11	42	20	—	—	47	21	37	20	48	20	47	28	46	27	54	48	56	49
10	24	—12	30	—14	57	28	—	—	55	12	48	22	—	—	53	23	47	18	52	20	54	37	58	34	64	47	55	46
11	24	—15	32	—16	57	29	—	—	60	8	46	22	—	—	56	22	37	19	55	17	56	31	58	28	58	47	59	48
12	25	—16	27	—17	57	22	—	—	58	11	48	23	—	—	56	22	36	17	50	17	57	36	57	32	64	55	64	53
13	29	—15	28	—12	60	25	—	—	55	14	50	20	—	—	58	22	36	18	50	19	59	39	59	34	61	54	61	56
14	25	—16	28	—15	59	25	—	—	59	16	49	21	—	—	54	22	47	15	59	22	56	33	58	32	70	59	63	53
15	26	—9	26	—12	40	31	—	—	68	18	36	25	—	—	41	23	45	21	44	16	47	29	48	27	68	54	59	52
16	86	7	29	1	46	35	—	—	47	15	38	27	—	—	37	28	32	27	40	31	49	43	45	39	74	56	59	54
17	82	9	31	14	40	30	—	—	49	13	44	23	—	—	34	23	37	25	37	17	52	36	55	32	68	53	62	56
18	27	9	34	3	48	29	—	—	40	5	45	19	—	—	35	24	38	21	42	11	47	33	48	31	67	58	58	51
19	29	3	35	11	54	29	—	—	49	13	42	25	—	—	51	30	28	16	40	22	57	41	58	40	62	56	61	54
20	15	—21	16	—21	52	29	—	—	35	11	34	15	—	—	45	30	29	11	31	21	48	34	53	32	72	57	67	55
21	11	—20	10	—16	47	35	—	—	38	14	38	20	—	—	33	23	20	10	27	23	37	30	43	31	68	57	55	48
22	15	—26	20	—19	42	22	—	—	40	6	34	0	—	—	45	15	22	8	32	3	40	28	44	26	68	52	64	50
23	22	—14	27	—8	52	24	—	—	40	7	38	15	—	—	50	24	26	15	40	19	56	29	60	29	72	43	62	52
24	19	—12	24	—6	46	23	—	—	41	6	38	15	—	—	43	26	26	9	39	20	45	29	50	27	75	60	67	51
25	22	—17	20	—10	47	23	—	—	42	4	36	8	—	—	42	18	31	6	37	8	41	27	44	23	60	49	54	42
26	29	—6	23	5	56	24	—	—	45	7	43	12	—	—	54	23	34	15	42	21	52	28	58	30	70	34	62	47
27	23	—2	30	6	52	22	—	—	46	9	36	14	—	—	44	29	31	15	43	24	44	30	48	27	73	60	65	55
28	26	—14	24	—14	50	25	—	—	40	2	38	14	—	—	51	21	33	12	43	20	47	26	52	24	68	50	55	44
29	20	—18	27	—15	53	32	—	—	34	4	38	13	—	—	35	21	37	12	42	15	50	24	54	24	68	46	53	44
30	19	—16	24	—10	55	20	—	—	46	13	43	12	—	—	52	24	34	14	41	20	54	34	58	32	77	40	56	42
31	29	—8	30	—5	57	24	—	—	56	28	47	22	—	—	60	38	37	23	48	26	49	36	55	32	77	41	59	43
Mus.	27.2	—5.4	26.5	—3.1	51.9	26.8	—	—	48.8	13.0	41.2	18.6	—	—	47.9	26.1	35.3	17.5	43.6	21.1	51.6	35.2	53.2	33.8	69.5	53.4	63.2	53.0

Texas

Date.	Del Rio.	El Paso.	Fort McIntosh.		Fort Stockton.		Fort Worth.		Galveston.		Hallettsville.		Houston.		Lufkin.		Palestine.		Plainview.		San Antonio.		Seymour.		Taylor.			
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.		
1.....	71	56	54	38	86	61	75	45	65	46	70	65	75	56	75	57	74	58	71	46	48	39	74	60	60	43	72	58
2.....	78	62	60	32	86	74	65	48	68	57	72	69	78	70	76	70	77	45	71	61	46	78	68	62	53	76	66	
3.....	75	65	63	34	85	75	62	46	62	59	72	69	78	71	76	70	72	54	68	64	53	38	75	69	60	53	72	64
4.....	65	57	47	34	82	71	62	48	65	54	72	69	74	65	71	67	67	58	64	58	44	44	70	59	60	53	70	55
5.....	67	47	49	33	86	74	62	30	60	49	71	51	65	53	71	51	65	52	64	50	49	31	67	50	61	53	63	52
6.....	66	40	56	32	80	44	58	33	56	45	70	54	68	57	69	50	65	44	60	48	42	33	67	45	57	33	61	46
7.....	51	40	53	25	65	44	52	30	48	36	60	50	64	53	60	44	64	45	62	41	27	52	40	42	34	49	38	
8.....	52	32	50	28	64	41	53	20	46	31	53	43	54	36	55	37	55	29	48	30	44	19	52	34	45	25	48	32
9.....	54	33	49	30	62	36	54	22	50	32	54	44	54	39	57	35	58	28	53	33	47	23	54	37	50	24	49	32
10....	53	46	55	33	65	45	53	33	59	58	55	49	54	45	55	48	58	42	56	42	62	26	45	38	58	29	48	44
11....	62	40	57	30	58	47	61	32	59	37	61	50	60	54	63	49	60	48	61	42	55	25	59	48	60	30	60	46
12....	55	49	57	30	65	45	65	32	60	39	63	53	58	52	60	46	64	34	61	37	54	23	56	51	60	49	56	47
13....	62	46	58	29	68	52	64	36	53	48	68	62	64	54	63	54	57	50	54	49	50	28	60	51	55	33	56	48
14....	69	40	58	29	68	49	62	29	53	46	63	53	64	53	64	48	57	50	53	49	54	24	64	48	55	33	59	47
15....	53	48	46	40	65	47	58	29	54	37	59	51	66	54	62	46	60	40	58	44	53	24	54	42	49	30	55	40
16....	57	48	49	38	57	52	57	37	50	46	60	53	56	52	59	50	60	48	54	47	45	33	52	49	49	30	50	49
17....	63	47	42	32	71	52	58	30	55	40	60	54	52	41	60	52	59	50	47	44	29	65	47	48	36	58	47	
18....	55	45	48	33	64	48	61	35	55	40	57	52	58	48	58	45	59	38	52	41	46	34	59	46	55	35	53	42
19....	58	45	55	30	72	68	68	33	52	40	60	52	62	54	61	49	58	43	54	45	55	36	60	48	55	35	63	44
20....	62	40	53	32	68	55	65	30	49	35	66	56	64	48	68	50	66	43	57	42	44	27	62	46	52	31	57	42
21....	49	44	48	34	70	48	51	30	40	31	57	46	51	41	56	42	65	48	46	33	28	21	50	40	40	28	45	34
22....	59	38	43	25	72	62	54	26	41	33	57	47	52	45	53	42	66	36	44	36	32	5	58	42	37	29	50	37
23....	59	41	52	27	89	44	66	30	46	30	56	52	63	35	56	37	54	26	48	31	37	3	55	35	35	26	49	32
24....	62	40	46	31	70	41	55	36	52	36	58	42	60	44	48	42	46	35	47	39	35	12	62	42	46	25	60	38
25....	54	35	47	28	58	41	51	20	40	29	44	40	59	38	48	37	45	38	39	34	33	10	58	36	38	26	47	34
26....	58	33	54	28	69	35	66	24	45	26	53	38	53	35	50	32	58	24	49	28	34	14	54	32	49	25	52	29
27....	59	41	52	30	67	48	56	27	51	36	65	52	62	48	61	47	53	33	47	42	35	20	55	47	48	30	57	43
28....	56	37	48	27	60	46	56	25	47	32	53	43	48	39	49	39	48	40	45	38	39	16	55	39	46	24	47	33
29....	55	33	50	35	64	35	57	25	44	28	49	40	54	36	52	34	47	29	40	30	43	15	55	35	50	22	48	31
30....	58	33	55	26	67	45	63	26	50	28	46	40	56	34	52	34	53	31	47	29	45	28	55	33	56	20	46	28
31....	67	34	59	38	64	35	65	33	48	35	64	45	60	36	59	40	59	31	53	39	49	24	64	60	69	33	51	37
Mns.	60.1	43.1	52.0	31.6	69.9	50.3	59.8	31.5	52.4	38.7	60.3	50.8	61.2	47.9	60.1	46.6	59.5	41.2	53.9	41.8	45.7	25.1	59.4	45.3	52.4	33.5	55.4	42.3